Appl. No. 10/528,142

In the Claims

The following is an amendment to and a complete listing of the claims which replaces all prior listings of claims in this application.

Listing of Claims:

- 1. (currently amended) <u>A</u> Francis runner which comprises comprising:
 - a crown[[,]];
 - a band; and

blades extending between said crown and said band, said blades defining liquid flow channels therebetween, characterized in that the wherein a ratio (e/L) of [[the]] a maximum thickness (e) of each blade to [[the]] an average developed length (L) of [[its]] an average fibre [[(23)]] of each blade is included between 0.1 and 0.2, and in that, at the level of the a leading edge [[(21)]] of each blade, said average fibre is oriented, over essentially [[the]] an entire height of the leading edge, along a straight line (Δ_{23}) forming an angle (α) greater than 90° in relation relative to [[the]] a line (U) defining a linear speed of advance (U) of said leading edge in the direction of rotation

Appl. No. 10/528,142

of the leading edge of the runner.

- 2. (currently amended) <u>The runner Runner according to Claim 1, characterized in that wherein said ratio (e/L) is greater than 0.13, preferably than 0.15.</u>
- 3. (currently amended) The runner Runner according to Claim 1, characterized in that the average wherein said angle (α) between the linear speed of advance line (U) of [[a]] each blade [[(2)]] at the level of its leading edge [[(21)]] and the average fibre [[(23)]] of said blade at the level of said leading edge is included between 110° and 140°.
- 4. (currently amended) The runner Runner according to Claim 1, characterized in that each blade [[(2)]] is formed by a skin [[(26)]] constituting [[the]] two lateral faces [[(24, 25)]] of said blade and defining a hollow internal volume (V_2) of said blade.
- 5. (currently amended) <u>The runner Runner according to Claim 4, characterized in that wherein said skin [[(26)]] is metallic.</u>
- 6. (currently amended) The runner Runner according to Claim 4,

Appl. No. 10/528,142 characterized in that <u>wherein</u> said skin [[(26)]] is made of composite material.

- 7. (currently amended) The runner Runner according to Claim [[1]] $\underline{4}$, characterized in that wherein said skin [[(26)]] is formed by assembling [[(27₁, 27₂)]] two plates [[(26₁, 26₂)]] respectively constituting [[the]] \underline{a} pressure side surface [[(24)]] and [[the]] \underline{a} suction side surface [[(25)]] of said blade [[(2)]].
- 8. (currently amended) The runner Runner according to Claim [[1]] $\underline{4}$, characterized in that said volume (V_2) is lined with a filling material [[(28)]].
- 9. (currently amended) A Francis hydraulic turbine equipped with a runner, said runner comprising: (1) according to Claim 1 a crown;

a band; and

blades extending between said crown and said band, said blades defining liquid flow channels therebetween, wherein a ratio (e/L) of a maximum thickness (e) of each blade to an average developed length (L) of an average fibre of each blade is between 0.1 and 0.2, and at a leading edge of each blade, said

Appl. No. 10/528,142

average fibre is oriented, over essentially an entire height of the leading edge, along a straight line (Δ_{23}) forming an angle (α) greater than 90° relative to a line (U) defining a direction of rotation of the leading edge of the runner.

10. (new) The runner according to Claim 2, wherein said ratio (e/L) is greater than 0.15.